To: Papadopoulos, George[papadopoulos.george@epa.gov]; Gaito, Danielle[Gaito.Danielle@epa.gov]; David.ferris@state.ma.us[David.ferris@state.ma.us]; Mary.ruan@state.ma.us[Mary.ruan@state.ma.us]
From: Vakalopoulos, Catherine (DEP)
Sent: Tue 8/11/2015 10:21:00 PM
Subject: Pilgrim article in case you didn't see it

CAPE COD TIMES

Top of Form

Bottom of Form

Rising seawater temperatures force Pilgrim to reduce power

It was only the second summer in the nuclear plant's 43-year history that the temperature of the water used to cool the reactor exceeded the federal limit.

To cool its reactors, Pilgrim Nuclear Power Station draws up to 500 million gallons of saltwater a day from Cape Cod Bay through an inlet created by two breakwaters. Merrily Cassidy/Cape Cod Times File

By Christine Legere

August 11, 2015

PLYMOUTH — The owner of Pilgrim Nuclear Power Station had been planning to ask for a license adjustment that would allow the plant to draw warmer water from Cape Cod Bay than is currently allowed.

But the request was not made soon enough.

Pilgrim operators were forced to begin preparation for a shutdown late Sunday afternoon, when the temperature of the seawater used to cool the reactor edged above the 75-degree limit set by the Nuclear Regulatory Commission.

After reaching a high of 75.09 degrees, water temperature dropped below the limit about a half-hour later, and Pilgrim was up to full power by 8 p.m.

It was only the second summer in the plant's 43-year history that water temperatures exceeded the federal limit. In July 2013, Pilgrim had to lower its power level three times because of water temperatures during a heat wave.

The plant, however, has never been forced to fully shut down.

Millstone Nuclear Power Plant in Connecticut, which draws water from Long Island Sound, was the first in the Northeast to shut down because of rising water temperatures, which have become an issue in this region within the past five years. The plant has since secured a maximum intake temperature of 80 degrees on its operating license.

"Pilgrim is still looking to increase the maximum saltwater temperature to a higher value, but the supporting analysis is not yet complete," Lauren Burm, spokeswoman for Entergy Corp., the plant's owner-operator, said.

Last week's hot spell likely contributed to the rise in the bay's water temperature, but a spokesman for the Nuclear Regulatory Commission said the plant's discharge of hot water into the bay also may have been a contributing factor.

“The ballpark estimate on water discharge temperatures at Pilgrim (Sunday) would be about 95 degrees Fahrenheit,” Neil Sheehan said in an email.

Under its license, water discharged from the plant may be no hotter than 102 degrees, a level set by the Environmental Protection Agency as part of a water discharge permit David Webster, water permit branch chief for the EPA, called the 102-degree limit “not atypical” but conceded “it’s on the mid- to high end.”

The EPA has not renewed the water discharge permit for Pilgrim since it expired in 1996. Webster said the permit has been “administratively continued” until a new one is issued. A draft is expected to be ready for public comment by December.

Pilgrim draws up to 500 million gallons of saltwater daily from Cape Cod Bay through an inlet created by two breakwaters. The water is circulated through the plant’s condenser via a network of thousands of tubes, cooling down the steam from the reactor and returning it to its water form, Sheehan said.

“The higher water temperature affects the efficiency of the heat removal,” Sheehan said. David Lochbaum, director of the Nuclear Safety Project for the Union of Concerned Scientists, called the elevated bay temperatures “more of an economic hit than a safety issue” for Pilgrim.

“When the temperature goes up, the equipment needs more cleaning,” Lochbaum said. The intake limit of 75 degrees was set four decades ago based on history. “We’re seeing temperatures rise,” Lochbaum said. “Either they didn’t look back far enough when they set the limits or global warming is taking us beyond these bands.”